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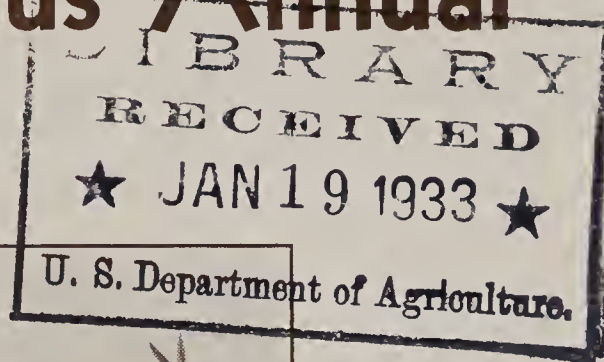
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# Hornberger's Gladiolus Annual

1933



AFLAME (HORNBERGER)

F. C. HORNBERGER, Clark Street, Hamburg, N. Y.



# COOPERATION vs. THRIP CONTROL

By F. C. HORNBERGER

Gladiolus thrips were first discovered in Canada and the U. S. A. in the year of 1930, and the entomologists are at a loss to account for their presence or where they came from. In the year 1931 the damage caused by this pest was very great, as it was an entirely new experience. No one knew just how to control its development; the difficulty that presented itself was the fact that it was not possible to reach it with poison sprays, except on the outside of the foliage—most of its increase was under the foliage, between the leaf and stem, where sprays could not reach them.

Gladiolus thrip increase very rapidly under favorable conditions. This insect has four stages of development; adult, egg, larva, (in several stages of growth) and inactive pupa, or getting ready to change to adult form. Hot, dry weather favors its rapid increase, while cold and wet weather slows down its development. At 80 degrees F. it is possible to produce a new generation in 12 days, and at 70 degrees F. it can complete its cycle in 20 days. The average life of an adult is thirty days. It is now believed that it cannot over-winter outside where ground freezes, and it is thought that the principal source of over-wintering is on the bulbs in storage where it will breed and develop providing the temperature is favorable. As the eggs do not hatch at 50 degrees F., it is desirable that you keep your storage rooms as cold as possible, 45 degrees F. or lower if possible.

Many different fumigants and poison dips have been tried, but not all of them get all of the eggs as well as the live thrip. The Bureau of Entomology, Department of Agriculture, Washington, D. C. who have conducted the most intensive study of this problem, have reported that the following methods have been found effective in the complete control of thrips.

When you dig your bulbs, use care so you do not shake any thrip that may be on the foliage upon the fresh dug bulbs. Do not leave bulbs to dry or exposed very near to infested foliage as the thrip are likely to migrate to the fresh dug bulbs—for this reason it is well to remove them as soon as possible. Destroy infested foliage by burning, store bulbs in a cool well-ventilated storage, below 50 degrees F. if possible. 33 degrees F. up to 45 degrees F. is an ideal storage temperature. Six to eight weeks before you plant your bulbs use Naphthalene flakes as follows: To each 100 bulbs use one ounce of Naphthalene intermixed with the bulbs. When ready to plant give them a dip in the following mixture, this is supposed to make a complete kill of all thrip and eggs, as well as act as a preventative of scab or neck rot of bulbs, and is therefore a double purpose dip. Do not use this in any metal container—use wood pail, tub or barrel. Corrosive sublimate (bichloride of Mercury) one ounce. As this dissolves slowly, put in a pint or quart of hot water to help dissolve; then add enough cold water to make five gallons of mixture. Use this mixture but twice, then make a fresh lot so as to be sure you have full strength. Place the bulbs in a mesh or burlap sack and keep fully covered with liquid for six hours, moving or stirring the bags several times to remove any air bubbles that may be on the bulbs, and which might give protection to thrip or eggs. Remove from dip and plant as soon as possible. Both the Naphthalene and the corrosive sublimate treatments when used **alone** are supposed to make a 100% kill of all thrip and eggs, but we suggest that you combine both treatments to make absolutely sure.

The hot water treatment will be found 100% effective in the quick destruction of all thrip and eggs. The eggs are the most difficult to destroy and here is where the hot water will make a quick and sure kill. The U. S. Bureau of Entomology recommends that you use hot water as follows: Completely cover all bulbs with hot water at 112 degrees F. for twenty minutes. Keep temperature at 112 by adding more hot water as needed. Do not let water get cooler than 112 F. at any time for the twenty minute immersion. This will not harm your bulbs in any manner.

The Canadian Bureau of Entomology recommends that you use hot water at 120 degrees F. for **ten minutes**. Keep water at 120 degrees F. by adding more hot water as

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NAME\_\_\_\_\_

P. O. \_\_\_\_\_

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FOR WHOLESALE ORDERS ONLY, AT PRICES LISTED. A TOTAL DISCOUNT OF 20% WILL BE ALLOWED AT M. RATES, BUT ONLY ON THE ACTUAL CASH WITH ORDER, AND NOT ON DEFERRED PAYMENTS. (OVER)



## WONDERFUL NEW COMMERCIAL YELLOW

**ZILLAH** (Parkman) New this season, never before offered, I tested this variety the past summer, growing it on gravel soil. This type soil grows beautiful bulbs but it is difficult to get very choice flowers on gravel soils. However, "Zillah" passed all expectations; tall massive, dark green foliage, straight spike, big flower head, six to eight massive Golden yellow, ruffled flowers open. I predict that in a very short time this will prove our leading early yellow. But here is what Prof. A. M. S. Pridham, of Cornell, has to say about "Zillah":

"Parkman's Zillah is a marked advance in the yellow group. It is of *Primulinus Grandiflorus* type with large ruffled florets of ideal form, and ideal spike, with a marked tendency to early flowering thrown in for good measure. The variety has ample substance in the floret, too.  
—Pridham.

Mr. Parkman has given me full authority to introduce this fine commercial yellow, the greatest "find" in many years. He has left the pricing to me, and it is with some hesitation that I establish the following prices. I feel if any variety is justified in being listed for the first time at \$25.00 it is this variety, but I also realize what a wonderful grower and propagator this will prove to be, and how quickly stock will increase, so I have established the following. Here are the introductory prices:

Large bulbs	\$5.00 each;	\$50.00 per dozen.
Medium bulbs	2.50 each;	25.00 per dozen.
Small bulbs	1.25 each;	12.50 per dozen.
Bulblets	.50 each;	5.00 per dozen.

### ZILLAH PRIZE OFFER

For the three best letters we receive next fall, telling us the results secured with "Zillah" (Good photographs will count strongly in addition to all facts in regard to the merits of this variety). (a) For best letter received; \$50.00 in size #1-2 Zillah, at next Season's prices. (b) For second letter; \$30.00 #1-2 bulbs of Zillah, and for third best letter; \$20.00 Zillah size #1-2.

needed but do not let your water get much above 120 F. Any heat temperature above 122 F. is believed to be harmful to the bulb and is likely to show its effect on growth of plant and quality of flower.

Each of the three methods we describe, Naphthalene, Corrosive Sublimate or hot water is believed will make a 100% kill, but it is thought best as a check if you combine at least any two of the three methods. We suggest that you use hot water or Naphthalene, as you prefer, and then before planting use the Corrosive Sublimate, this will prove very effective in preventing scab or rot, and at the same time, act to destroy thrip and eggs. Of course no harm would result if you desire to use the three methods.

It has been found by experiment that bulbs very heavily infested with thrip, when placed in cold storage (apple storage) at 33 degrees F. and left there over winter, when taken out in the spring and planted in an isolated place did not develop any signs of thrip damage, although no dip or fumigant was used, the cold storage, alone, eliminating the thrip. It has been found that gladiolus thrip eggs, when held in cold storage for thirty days, would not hatch when placed in an incubating temperature. The life span of the adult is about thirty days, so it seems if you keep your bulbs cold enough for several months, the chances are that the thrip will be eliminated by natural methods.

When you plant infested bulbs without any treatment, as soon as the plant develops, the thrip will move upward with its growth, and will be found hidden between leaf and stem. As soon as the bud develops the thrip will be found largely concentrated there. At flowering time most of the thrip that are on the plant in their various stages of development will nearly all be found in the bud, and the upper small leaves where the stem is more tender. If you have a light infestation, you will find that only here and there a plant will contain thrip. Most of them will be free until after the first blooms are gone. By cutting every bud at once as soon as it shows any indication of damage, you will remove most of the thrip and eggs on that plant. Cut as low as you do in regular flower cutting, taking all of stem with the upper leaves. Destroy all damaged spikes.

**Outside Infestation:** You may plant bulbs 100% free of thrip or eggs, but your plants may become infested from outside sources. From the infested plants in a neighbor's garden, and, if in path of high winds, from a considerable distance. You may receive infestation from a bunch of flowers a neighbor has discarded and which might have been purchased hundreds of miles from where you live, or been sent in a box by express or received from a florist, and the original grower perhaps lives in a distant state.

A friend or visitor from a distance may call to see your flowers and it is possible that if he had handled infested bloom even the day prior to his visit some thrip may leave his clothes and begin their work on your plants. Remember this fact, one unmated female will lay eggs that will hatch all males. Some of these again mating with the original female will then continue the regular development of thrip. It is possible that you purchase a single variety that belongs to the "resistant" group, and, providing you do not dip or treat bulbs, you may introduce thrip in this manner, yet not a single sign of thrip show on the purchased stock that was a resistant variety, but would quickly show on the less resistant varieties, although they may have been 100% clean when planted. The danger of outside infestation is mainly at flowering time and later.

Two men reported to me that they had found thrip on their clothes while at home in the evening although at the time many miles away from where they worked, handling lightly infested flowers. Just how far thrip will fly by their own efforts is not definitely known at the present time, but the high wind is a possible source of infestation.

A state nursery inspector related the following incident which proves one of the many and intricate sources of infestation. "In a very hilly and isolated part of New York state, a section in which most of the land was in large farms, and no one was found who was growing any glads except one man who was growing a considerable number, although he had not purchased any new bulbs for years, very near his planting was a cemetery. In 1931 a neighbor's funeral brought flowers in large quantity from many distant outside sources, and surrounding states, as the deceased had relatives and friends in many distant places. The floral pieces sent from a great distance consisted largely of gladiolus. The following year this glad grower found his stock infested with gladiolus thrip which had



migrated from the floral pieces lying on the cemetery to his nearby fields. Our large cities get floral products shipped from the most distant parts of the country, flowers are shipped and re-shipped. The small town florist living, say 50 to 100 miles or more from the large city, finding himself short of flowers, will telephone to the large city and an express shipment of flowers will go out at once to help fill his needs. Perhaps these same flowers were grown many hundreds of miles away in some other state. Such are some of the intricacies of shipping and re-shipping floral products.

However, a fact of great importance to remember is that most of this outside infestation is not likely to be noticed the same season it takes place, and the chances of getting any large number of thrip (except from heavy infestation of a very near neighbor's garden) in this manner is negligible. The danger is in getting some introduced and then not using any of the control methods found most effective. This would result, by the law of natural increase, in a more general infestation the next growing season. A few thrip, even one unmated female, in a warm storage is more dangerous than ten thousand thrip in a cold storage.

In the summer of 1932 most of the large growers, if they did not completely eliminate thrip, reduced them so that their damage was of the very lightest form, but all who used at least two of the best control methods did not discover any thrip damage at all. This fact is proven by the great supply of cut flowers that were available this past summer. In the case of growers who did not use the best precautions, and had a very light infestation, resulting damage was very late in the season and very mild.

As I view the situation, we must all regard our stock of bulbs as likely to have some infestation, and all of us cooperate by using one or more of the most effective control measures I have outlined. Several large growers have been advertising that they **guarantee** their bulbs to be 100% free of thrip, and I happen to know that nearly all of these same growers purchase from other growers, large quantities of bulbs for re-sale each year. No grower can guarantee his bulbs to be 100% free of thrip. He can tell you he believes to the best of his knowledge that they are entirely free, but I think I have shown you in this article the absurdity of making sweeping claims. I know some very highly experienced growers where their stock was very lightly infested who stoutly maintained that they had no thrip on their stock, although **experts found specimens** just the same. Cool weather, much rain and irrigation slows down the increase but **does not** eliminate thrip from the plants. No altitude or climate is exempt from their development. In a very light infestation it takes an expert a long time to discover specimens, and if conditions do not favor their increase, the grower may sincerely believe he is 100% free, but the danger here lies in the fact that a very few on the bulbs are, to all practical purposes, as dangerous as a larger quantity, in view of the fact that the people who buy such bulbs, if they have had no trouble of their own, may not use one or more of the cooperative control measures, and so meet up with disappointment, and the blame rests with those who **make** such guarantees.

Thrip, as far as investigation has proceeded, can live on only a few related plants, and will die when left on other plants and grass. It is therefore seen that Gladiolus thrip have many limitations that will make their control more easy than at first believed.

Because many varieties of glads show very high resistance to damage by thrip, we already have some growers advertising that they will tell you the names of varieties immune to damage. The fact is there is no real immunity. There are a number of well-known varieties that thrip do not seem to relish very much, and it is possible that you may plant an infested bulb of such a "resistant" variety, yet not discover any damage to the flower. The facts are that the thrip will have migrated to other nearby varieties that are more to its liking. For example, in the season of 1931 in one single section of the country, the thrip infestation and damage became so severe that the plants were completely destroyed long before flowering time, and the owners plowed down acres of new and valuable varieties at a complete loss, not saving a single bulb. Among them were many of the so-called "resistant" varieties. It is true that some varieties will suffer very serious damage while others seem immune, but this is only in cases of light infestation; we might say that the thrip prefer to consume their more choice food first, when that is



gone they are willing to start on the "hard tack" varieties. If you selected **only** the so-called "resistant" varieties and they became infested, you would note the same damage providing there was no more attractive inducements at hand to cause migration.

You will see by the fact I have stated how very easy it is to place the blame on the wrong grower, if you have purchased from several, and how easy it is for any grower to prove an alibi. So in conclusion, I say do not desert your favorite grower because he does not make the same sweeping claims that others have made. You can readily understand by reading this article that we must all cooperate and regard all bulbs from whatever source, including our own, as likely to have some thrip, although we honestly believe them to be 100% free.

However, it will make little difference to you if they are 100% free or if they have some infestation, your own safety and that of your neighbor demands that you use one or more of the cooperative control methods and if you do that consistently, you will make a 100% kill. We must all take our chances each season from danger of re-infestation from outside sources. No man can control that problem, and even a federal quarantine would be of no benefit at this date of the game. I have my letter files packed with the answers I have given to people who have written to me asking what to do for thrip damage. They come from **every state** in the union that grows any amount of glads, **even the Pacific coast states**. One of our greatest entomologists who has devoted all of his time to thrip study, informs me that he, personally, has found thrip on the Pacific coast. Every word I have written in this article I can verify.

As you will find in my summary of this article, thrip have been scattered in every nook and corner of the land. **No Grower**, large or small, can prevent outside infestation each growing season; if it is of a very light form, he will not know he has any. If he offers bulbs for fall sale and delivery, he cannot use all the methods required to completely eliminate all chance infestation. We suggest that you permit growers to hold your orders where possible until about March 1, as most of them have very cold storage rooms, and will use Naphthalene as a precaution. If you receive your bulbs in early March, you will have ample time to use the best control methods before planting time. **Read our Thrip Summary.** Ethylene-dichloride - carbon-tetrachloride is not always 100% effective when used alone—even in special built tight rooms. We have proof of this statement.

## COOPERATION vs THRIP CONTROL

*By F. C. HORNBERGER*

### How to Use Naphthalene

**Naphthalene Flakes:** When using naphthalene it has been suggested that you wait until your bulbs are cured and dry, before using. In that condition it is safe to keep them covered, or partly covered, for two or three weeks without harm. By covering them you will secure more complete and desirable results, and your period of fumigation is shortened. When using a tray, one foot by two feet and about four inches deep, use approximately one-half to one teacupful distributed among the bulbs. If your trays are of a different size, use in the ratio given for the cubic contents of your box or tray. Pile trays in center of floor and cover with a heavy tarpaulin or heavy paper. If you wish to cover small boxes on shelves, just pile a quantity of newspapers over box or tray. Bulbs completely cured and dry will permit being covered in this way. If you do not cover, give them a longer exposure, say six to eight weeks; but we prefer to have them covered.

You can examine your bulbs once each week to see that they do not mold or sprout, but if your storage does not have too much humidity, you will have no trouble. We have made tests many times by packing a large box of bulbs ready for shipment, and then holding them in our storage for thirty days with perfect results each time test was made. Boxes packed for shipment are more air tight than the method we suggest here.

If you keep your storage below 50 degrees F. through the winter, there need be no hurry to apply the naphthalene as it is believed that if you maintain your storage cold enough, thrip are likely to be eliminated by natural methods.



## THRIP SUMMARY

(a) Use caution when digging bulbs where plants have been infested, to prevent migration from plant to fresh dug bulbs. (b) Place in a cool, dry, airy place to cure; after a few weeks remove old bulb and roots, and place in storage for winter at a temperature between 45 F. and 33 F. (c) Six to eight weeks before planting, fumigate with naphthalene as instructed. (d) Use hot water treatment if desired. (e) Just before planting, use corrosive sublimate as instructed for a double purpose dip. (f) When glads are cut in the bud and shipped as cut flowers, most of the thrip that were on that plant will be shipped with the bud spike. More thrip are shipped and distributed in this manner than are shipped on the bulbs as most large growers fumigate bulbs before shipping them out. (g) If you live in or near a large city or distributing point, ask any wholesale florist from how many states and from what distances he receives cut glads in season. You will be surprised to learn that they are shipped from far eastern states, west of the Mississippi river and vice versa. The interstate shipment of infested flowers is an intricate matter. In this manner thrip have now been spread in practically every section that grows any quantity of glads. No one state, no matter how rigid their inspection, can prevent the winds from carrying thrip across its borders from a neighboring state that is not as rigid in its regulations. While large growers of bulbs and flowers in well known sections, seeking to keep up the reputation of their product have likely used every method of prevention, the same can not be said in the case of the thousands of small gardens, and other thousands of uninformed persons in every state of the union who have not been able to prevent infestation. The letters of last year and this year from every part of the U. S. that we have received, even from the Pacific coast, assure us that thrip is now well distributed everywhere. To back up this assertion, I have the statement of the greatest thrip investigator in the U. S., and this same entomologist says that he, personally, found thrip on the Pacific coast. I urge every person to the utmost cooperation to the end that we may encourage people to continue with their favorite flower, because so many have been discouraged. It is not at all difficult to control and eliminate thrip, even in the south, if people will cooperate and follow very simple but exact formulas. This will also tend to the production of better bulbs and finer flowers as the very methods required to keep thrip in control tend to the more scientific growing and handling of the gladiolus. For persons interested in the use of Cyanogas or Ethylene-dichloride - carbon tetrachloride gas, we will be pleased to furnish the latest information as issued by the U. S. Bureau of Entomology, and the Canadian Bureau of Entomology, as well as that of private investigators. We will also furnish the latest formulas on sprays whenever you need them. As this is still in the process of investigation, it will be best to wait until you are sure you need a spray before asking because of this fact. Cyanogas is a very cheap fumigant but a deadly poison, and must be used with great care; and for this reason is difficult to use in dwelling places. It will kill all live thrip as well as rats, mice and other vermin but will not kill the eggs. For that reason, it is used two or three times at about ten day intervals where storage is kept warm, but here is a quotation from the Bureau of Entomology—"For growers who hold their stocks at 50 degrees F. or lower, only one fumigation appears to be necessary. In tests made, thrip eggs held in storage at 50 degrees F. for thirty days failed to hatch." As far as investigation can prove, bulbs kept below 50 degrees F. for more than thirty days are practically free from danger of any eggs hatching. When ready to fumigate with Cyanogas, heat rooms to 60 degrees F. or higher during the fumigation, afterwards, bring back to below 50 degrees F. The Florida growers have had but little damage from thrip. Their growing season is in winter when it is cool. They have the benefit of frequent rains, and when they dig their bulbs they place them in cold storage. As it is thought that thrips can only live on glads and a few related plants, it looks as though there was but little to worry about.

The last word from the bureau of entomology, December 1, 1932, states "Thrip do not overwinter out of doors in the north."



## DEPTH OF PLANTING

### Results of Experimental Work in Michigan.

Gladiolus bulbs planted at a depth of two inches, gave the greatest number of bulblets, a depth of four inches came next; and the six inch depth last, with the least bulblets; The difference in large bulb production was very slight; although higher crowns were secured at the greater depth in sandy loams; The shallower the planting the greater the number of blooms from No. 3 sizes planted; Shallow planted bulbs, make it difficult to keep the plants standing upright at flowering time, in particular in very light soil; Smaller bulbs may be planted more shallow to good advantage, as they do not make such tall tops; and we expect the greatest bulblet production from the small sizes we plant.

## EXPERIMENTS WITH FERTILIZERS

To build up your soil and make it fertile and productive, you should plow under a good quality and quantity of manure or Green Crops the previous fall before planting. Liming may be done at this time, using finely ground, high grade limestone at the rate of one half ton per acre.

Superphosphate, either 16% or 20%, has been found necessary in many soils, and should be added, when planting. Spread in the furrow before planting at the rate of five pounds to 100 linear feet; stir well before planting. This is at the rate of about 750 pounds per acre. If your soil is fairly rich and productive, you may reduce this amount somewhat. The object of this application is to secure flowers of larger size, and to develop higher crowned bulbs. Among the complete fertilizers that have been found desirable are 2-16-2; 3-12-3. If these are used the superphosphate may be eliminated entirely. Just before flowering spikes appear, if you feel you need a top dressing, you may use a nitrogenous fertilizer like Urea or Ammonium sulphate, scattered along the row at the rate of one pound to 100 linear feet. The use of nitrogenous and potassic fertilizers, at the time of planting, checks growth and is not beneficial in the production of bulbs and bulblets.

## DISEASES OF GLADIOLUS

There are several diseases to which Glads are more or less subject. They are briefly: rots of a bacterial or fungus nature, the most common is *Bacterium marginatum*, commonly known as scab or neck rot. Much has been written on this subject, but in all that has been said little consideration has been given to soil influence in relation to scab damage. Soil is the principal factor in growing bulbs free of scab. It is desirable that we use dips such as Corrosive Sublimate, Calogreen or other mercury compounds to control scab, but if we continue to use very heavy, poorly drained soils, we will continue to have a large amount of scab, regardless of dips used. On the other hand, by the use of well drained, sandy loam, gravel or sandy soil, we will have a minimum of scab even **without dipping**. Your rate of scab will be in proportion to the type of soil you use. Drainage is of first importance.

We have made many tests to determine just what influence soil had on the increase of scab. We have planted clean bulbs (all dipped in control dips) on poorly drained, heavy land that never was planted to glads before and had them come out nearly 100% scab. We again planted these same bulbs on well-drained, gravel soil the next season; not using any control dip on the badly scabbed bulbs, and the gravel soil used had grown many crops of Glads in previous years, but the new crop proved nearly 100% clean. The results which we secured over a number of years of making this test have proven conclusively that your ratio of scab damage will be largely influenced by the type of land used.

Hard rot and dry rot are more serious diseases and your loss will be heavy if not controlled. Destroy all diseased bulbs, use a good dip before planting, and rotate to new soil as much as possible. Use Calogreen as a dip.

## HORNBERGER'S ORIGINATIONS

You will find these in regular Price List and others in the Premium List. Following each variety are the initials (FCH) this indicates that we are the Originators. Below, we give a brief description of a number of our originations.

**AFLAME (FCH)** Considered by many as one of the best ten ever originated; winner of many awards and medals, the Giant of the Prim grand class. Massive green plants producing spikes reported as high as six feet, and under good culture, florets often over six inches. If you did not have last year's catalog, let us send you a copy, and you can read the pages of comment of leading growers and others.

**ALIGHT (FCH)** Sport of Aflame. A new sensational variety, like Aflame in all except color which is a shade lighter, with large white throat. A wonderful basket Glad.

**ALLENWOOD (FCH)** Dark rose pink. Tall grower commercial and exhibition, seven to nine large blooms open. One Glad Fan writes: "In spite of a very bad drought and blistering sun, the two bulbs of Allenwood produced four very outstanding spikes. Right out in the hot sun. One of them had twenty-six buds with eleven unwilted florets open at one time. I consider Allenwood one of the finest glads I have ever seen, and I am growing one hundred seventy-seven varieties of the admitted leaders".

**BEN HUR (FCH)** Medium height, large clear purple. Six to eight open.

**BLUE TORCH (FCH)** Color is pale violet. Quite early.

**BROWN WINGS (FCH)** Prim-Grand. Color combination is brown and tan.

**BUFFALO (FCH)** Tall, dark red Exhibition variety. Somewhat slow propagator.

**HAMBURG PINK (FCH)** A Pink Halley, strong grower, rapid propagator. Called outstanding at Cornell trial grounds. Quite early, 70 days. Large flowers of a bright pink, a shade deeper than Rita Beck.

**IVANHOE (FCH)** Bright salmon pink, similar in color to R. Diener but better placement.

**MISS NEW YORK (FCH)** Doree begonia rose. Heavy substance, crisp form. Very attractive florist color.

**MRS. CATH. EDWARDS (FCH)** Very early, about 70 days. Grow this on loam or any good moisture holding soil, but not on gravel or very dry soils. When grown on right soil it is a splendid variety, tall straight stems, color a creamy white, very large florets often 5½ to 6 inches.

**MRS. F. C. HORNBERGER (FCH)** The perennial Prize Winner. Perhaps the greatest commercial white. Listed as one of the twenty-five best varieties in the National symposiums. Winner of the Vaughan's Bronze Medal as best white. Six to eight open, large pure white, lightly frilled or ruffled blooms. Peace-x-Europa, a glorified Europa. Very strong grower and rapid propagator. If you did not have last year's catalog, let us send you a copy. You will find pages of facts about this variety.

**NEW GOLD (FCH)** Tall clear golden yellow. Received special mention at Cornell trial grounds.

**PINK SHOW (FCH)** Extra tall pink and yellow. As many as 12 to 14 medium flowers open, excellent placement.

**RADIANT QUEEN (FCH)** Extra early. We first called this Improved Orange Queen, but deeper and more rich colored. Orange and saffron.

**SALMON GLOW (FCH)** Perhaps the earliest glad we grow. Very large salmon orange, with daffodil yellow throat. Distinct Prim-Glad, bloom often 5½ to 6 inches.

**TREVONIAN (FCH)** New 1932. Very large outstanding new lavender rose. Fine Exhibition and Commercial. Strong straight stems with extra large florets.

**VINTAGE WINE (FCH)** Unusual dark wine red, color novelty.

**WHITE STAR (FCH)** Pure white, tall, late variety. Placement not always good, for best results do not cut in bud. Extra fine when left to open on the stalk. Ten to twelve large florets open.



# OUR SPECIAL PRIZE AND PREMIUM LIST

## — CASH DISCOUNTS —

For cash with orders, \$5.00 to \$25.00, you can take a 2% discount, and orders over \$25.00 a 5% cash discount. In addition, any item listed below will be given free with orders that total \$3.00 or more. You may select up to 25% of your order in items listed below as free extras. Some items we limit, others you can take the full 25% in one item if wanted. Where we limit an item, you can make up your 25% allowance with other items. As far as possible we will send the variety and size wanted, although we do reserve the right to make changes if we are all out of item wanted. The 25% free bulbs only apply on Prepaid orders of \$3.00 and up. Prices of many of the following items will be found in regular list, and others not listed in regular list will be found below with prices attached.

### FOLLOWING OFFERS DO NOT APPLY TO WHOLESALE PRICES

**ALLENWOOD (FCH)** We will give all sizes except bulblets, to 25%. See price list.

**BELLE OF HAMBURG (FCH)** A novelty gladiolus—montbretia hybrid, bell shaped flowers of a saffron orange-yellow color. Large—\$1.00, M.—50c, S.—25c, Pkg. of Blts.—25c. To 25% of order.

**BILL SOWDEN (Fallu)** We allow only size No. 3-4 or medium size. See list. Not over 10% of order this item.

**BLEEDING HEART (Brown)** Medium sizes, Nos. 3-4 only. To 10% of order. See list.

**BROWN SEEDLING (FCH)** No. H-888. Somewhat similar but much darker than Brown wings. Prices, 35c; 25c and 15c each. To 25% of order.

**BROWN WINGS (FCH)** All sizes except bulblets. To 25%. See price list.

**DIENER'S LILAC (Diener)** Large—\$1.00 each, M.—50c each, S.—25c each. To 10% of order.

**FARMERS WIFE (Rug.)** 35-25 and 15c each, all sizes, blts. Tall, strong white.

**FLUFFY RUFFLES (Brown)** Clear yellow lacinated and ruffled. Tall straight spikes fine for basket. Large—\$.75 each, M.—35c ea. S.—20c ea. Bulblets, package—\$.25. To 25% of order.

**GLORY OF U. S. A. (Carey)** All sizes and bulblets. See list. To 25% of order.

**GOLDEN GLOW (Cameron)** Tall new yellow. Large—\$1.00 ea. M.—50c ea. S.—25c. ea. Up to 25% of order.

**HELEN JACOBS (Salbach)** All sizes except bulblets. See list. To 25% of order.

**IVANHOE (FCH)** All sizes except blts. See list. To 25% of order.

**KIRCHOFF'S NEW VIOLET** Large—30c. ea. M.—15c ea. S.—2 for 15c. To 10% of order.

**LAVENDER BRIDE (Bride)** Fine, large smoky. Very good. In medium and small size. To 5% of order. See list.

**MATILDA ANN (Diener)** Very large frilled white. Large & Medium \$1.00 each, Bulblets—25c per pkg. To 10% of order.

**MISS NEW YORK (FCH)** Medium and small sizes. See list. To 10% of order.

**MRS. CATH. EDWARDS (FCH)** Very large outstanding creamy white. Early 70 days. All sizes except bulblets. See list. To 10% of order.

- MRS. RAY P. CHASE** (Miller) Outstanding new creamy white. In large and medium sizes only. See list. Not over 10% of order.
- MAROLEE** (Carpenter) Very fine large jasper pink, yellow throat. See Price list. To 25% of order.
- KING TUT** (John Davis) Very massive dark pink. Large—\$1.00, M.—50c each, S.—25c each, Pkg. Bulblets 25c. To 25% of order.
- OHIO SMOKE** (Hunt) Large dark smoky. Unusual. Large—35c each, Medium—25c each, small—15c each. Bulblets Pkg.—20c. To 25% of order.
- ORCHID LADY** (Spencer) Medium and Small sizes. See list. To 5% of order.
- SPORT OF MARMORA** (FCH) Pale Marmora. Very beautiful. Instead of a dark, smoky grey, this is a very light, pale pearl, smoke grey. Distinctly different. Outstanding. Large—\$1.00 each, M.—50c ea., S.—25c ea. 25% of order.
- SPORT OF ANNA EBERIUS** (FCH) Fine lilac-lavender with dark throat blotch. Large—\$1.00 each, Medium—50c each, Small—25c each. Up to 25% of order.
- SPORT OF CAPT. BOYNTON** (FCH) Fine lilac purple. Otherwise same as Capt. Boynton. Large—\$1.00 ea., M.—50c ea., S.—25c ea. Up to 25% of order.
- SPORT OF RICHARD DIENER** (FCH) A beautiful light buff pink. Same as R. Diener in all save color. Outstanding. Large—\$1.00 each, M.—50c, S.—25c. 25% of order.
- SEEDLING H. 1177** We would call this an improved Mrs. L. Miller, better in color. A grower said last summer that he thought this the most beautiful of all glads. A deep golden, daffodil yellow edged with wide border of salmon pink. Flowers are deeply ruffled. Petals of heavy substance. Spikes always straight. Color combination is wonderful. Large \$1.00, M.—50c ea., S.—25c ea. To 25% of order.
- TREVONIAN** (FCH) Outstanding new lavender rose. Very large. All sizes but no bulblets. See list. To 25% of order.

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**CROOKED SPIKES:** There is a tendency with some varieties to produce a certain percentage of crooked spikes, this is more or less a varietal tendency, but is largely influenced by soil and other factors, we have made tests over many years using the following varieties: Break O' Day, Souvenir, and Elizabeth Tabor, because very early and popular as cut flowers, when grown on loam, or a good sandy loam, we have had very good results, but whenever planted on early gravel soil that dries out quickly, and has a tendency to become very hot, we have found that these varieties have given us as high as 25% to 50% crooked spikes, we have had another flower grower cooperate with us in these tests results have all been the same.

### OUR GUARANTEE

We guarantee our bulbs to be the equal of any grown at any place and regardless of at what prices sold. We have the training and equipment to produce bulbs of the highest quality. Our slogan, "NONE BETTER GROWN" sums up in three brief words all that you can desire in quality and service. We do not say that we produce bulbs superior to other competent growers; we do not like that type of propaganda, but when we tell you that there are "None Better Grown" we mean that. We have used all known scientific methods to give you the highest quality that can be produced. You who know our service need not be told of our generous treatment of every order, large or small. We appreciate your patronage.





*Size No. 1*

*No. 2*

*No. 3*

*No. 4*

*No. 5*

*No. 6*

Bulbs graded to the six standard sizes. Bulblet at right. This sign (\*) before a variety name is explained under heading, "WHAT ARE THE BEST VARIETIES".

**CASH DISCOUNTS:** Wholesale or Prepaid Prices on orders \$5.00 to \$25.00 take 2% off for all-cash sent with Order; over \$25.00, take 5%.

**TERMS OF SALE:** Cash or C. O. D. 15% of amount of order will hold for Spring delivery. If we do not receive balance due on order at shipping date, we will ship at that time C. O. D. for balance due. All quotations in this Catalog are Prepaid **EXCEPT** Wholesale 1000 Prices listed in back of Catalog, and several articles of merchandise where terms are plainly indicated.

**GRADING:** Our Bulbs are graded in Standard Sizes where quoted at Wholesale 1000 Rate, F. O. B. Prices. Our grade is up to size as we always grade oversize and allow for shrinkage.

**PREPAID PART OF THIS CATALOG:** The Special grading will be, when listed **Large**—Sizes #1-2 combined; when listed **Medium**—Sizes #3 and 4 combined, and when listed **Small**—Sizes #5 and 6 combined. As a rule for outside planting #3 and #4 give very fine flowers, and even the #5 and sometimes most of the #6 give smaller spikes but very fine flowers. Your small bulbs are likely to give the greatest increase in bulblets.

**CHANGE OF SIZE:** For Prepaid Orders, if you wish the larger of any of these special grades, allow 20% extra on item and we will send all in larger size.

**WE DO NOT SUBSTITUTE** without permission. We are sometimes out of a size or variety; let us know when you send order if you wish us to substitute if out of item wanted.

**RATE PRICES:** In Prepaid Section of this catalog, we list in Lots of 1, 10, and 100—25 bulbs or bulblets at 100 rate. Two or more at 10 rate **providing** each item is 15c or more. No item under 15c. No Order for less than \$1.00. To find 1000 rate, multiply the 100 rate by eight. 250 at the 1000 rate price.

**EXPRESS RATES:** From coast to coast per 100 lbs. at Second Class rate, will cost from ten to twelve dollars, so there is a distinct saving in shorter hauls.

**CALOGREEN:** Prevents disease, \$2.10 per lb.

**RAT SCENT** A specially prepared entire grain, coated with a scented material that attracts rats and mice, which they eat in preference to pure whole grain. It is guaranteed money back if not satisfied. In demand by bulb growers to keep their storage rooms free of rats and mice. It will also kill moles as they are attracted to it. **In two sizes, 35c and 50c.**

**CORROSIVE SUBLIMATE** (Bichloride of Mercury) Use for disease and thrip prevention. See article on thrip. **\$1.25 per lb.**

**NAPHTHALENE FLAKES** Used to fumigate bulbs to destroy thrip and eggs. Read article on thrip for full details. **Per 1 lb.—10c, 5 lbs.—40c, 10 lbs. or more at 7c per lb.** Not prepaid. We will prepay in lots of 5 lbs. or more at a rate of 15c per lb.

HORNBERGER'S - FLOWER - IN - BULBS

PREPAID SECTION

Name of Variety	Per	Large	Medium	Small	Bulblets	
		1¼-1½	¾-1¼	¼-¾	Per	Price
A. E. Kunderd (K)	10	\$ .35	\$ .15	\$	Qt.	\$ 2.50
Large Salmon-rose	100	2.50	1.00	.50	1000	.75
*Aflame (FCH) Prim-Grand Nat. Prize	10	.50	.25	.15	Qt.	6.00
Winner. Rose to flame red giant size	100	4.00	2.00	1.00	1000	1.50
*Aida (W. P.) Fine	10	.80	.40	.20	Qt.	10.00
Large dark blue-purple	100	6.40	3.00	1.60	1000	3.00
Albatross (W. P.)	10	1.60	.80	.40	10	.20
Tall, pure white	100	12.00	6.00	3.00	100	1.50
*Alight (FCH) Sport of Aflame '31.	1	5.00	2.50	1.25	1	.50
White throat shade lighter than Aflame	10		20.00	10.00	10	4.00
Allenwood (FCH) Tall Beautiful exhibi-	1	1.00	.50	.25	10	.50
tion pink. Shade deeper than Coryphee	10	8.00	4.00	2.00	100	3.00
Angel's Dream (Ellis) Light Salmon	10	.80	.40	.20	Pkg.	.20
*Anna Eberius (D)	10	.35	.15		Qt.	1.00
Velvety deep purple	100	2.00	1.00	.35	1000	.50
Annie Laurie (B) Lovely delicate pink.	10				Qt.	1.00
Very choice	100	1.50	.75	.25	1000	.50
*Apricot Glow (P)	10	.35			Qt.	1.00
Very fine Prim. Apricot color	100	2.00	1.00	.25	1000	.50
Aristocrat (Bill)	10	.50	.25	.15	Qt.	3.00
Pale saffron, flaked orange	100	4.00	2.00	1.00	1000	1.00
*Ava Maria (Pfitzer) Outstanding	10	1.00	.50	.30	100	.30
Fine Light blue	100	9.00	4.50	2.25	1000	3.00
*Bagdad (Palmer) Smoky old rose	1	1.60	.90	.40	10	1.00
*Ben Hur (FCH) A clear royal purple.	10				Qt.	2.00
Very large flowers	100	4.00	2.00	1.00	1000	1.00
Berty Snow (Mair)	10	.70	.40	.20	Pkg.	.20
Lovely lavender	100	6.00	3.00	1.00	1000	.75
*Betty Joy (Bill) Light pink on cream	10	.35	.15		Qt.	1.00
ground, 4X Commercial	100	2.00	1.00	.25	1000	.50
*Betty Nuthall (Sal) Light coral pink with	10	.60	.30	.20	Qt.	4.00
pale orange throat	100	5.00	2.50	1.25	1000	1.00
Bill Sowden (Fallu) Australian. Tall giant	10	1.80	.80	.40	100	1.00
red	100	16.00	8.00	4.00	1000	10.00
Bleeding Heart (B)	10	4.00	3.00	1.00	100	.60
Deep rose, pink, dark blotch	100	30.00	20.00	7.00	1000	5.00
Blue Admiral (Christ) Large dark blue	1	15.00	10.00		1	1.50
variety. Outstanding						
*Blue Danube (Pfitzer) Tall.	1	1.00	.60			
Fine medium blue	10	8.00	5.00			
Blue Torch (FCH) Pale violet. Tall spike.						
Large florets	10	.60	.25	.15	1000	1.00
Blue Triumphator (W. P.)	1	1.50	.80	.50	10	1.00
Largest light blue	10	12.00	6.00	4.00	100	8.00
Bobby Douglass (Rademacher)	1	.25				
Large white. Australian	10	2.50	1.50	.75	25	.25
*Bon Echo (Bonnesteel)	10	.35	.20		Pkg.	.20
Lovely tall buff cream	100	3.00	1.50	.75	1000	1.00
Brown Wings (FCH) Large Prim-Grand.	10	1.50	.75	.40	Pkg.	.20
Brown and tan	100	12.00	6.00	3.00	1000	4.00
Buffalo (FCH) Large Blood red. Many	1	2.00	1.00	.50		
open	10	15.00	7.00	3.00		
California (Khff) Large orange	10	.50	.25	.15	Pkg.	.20
Canberra (Errey) Tall Yellow. Sturdy	10	1.00	.45	.25	90	.20
grower	100	8.00	4.00	2.00	1000	2.00
*Capt. Boynton (Rev. B.) Very fine com-	10	.35	.15		Qt.	1.50
mmercial lavender	100	2.00	1.00	.50	1000	.60
Capt. Kidd (McKibben) Bright red laci-	10	.60	.30	.15	100	.20
nated	100	5.00	2.50	1.25	1000	2.00
Cara Mia (Miller) Early Prim. open.	10	.40	.25	.15	Qt.	2.50
Lovely pink	100	3.00	1.50	.60	1000	.75

2 BULBS OR MORE AT THE 10 RATE PRICE



## NONE BETTER GROWN

Name of Variety	Per	Large	Medium	Small	Bulblets	
		1¼-1½	¾-1¼	¼-¾	Per	Price
Cardinal Prince (K) .....	10	.40	.25		Ot.	1.00
Deep cardinal red .....	100	2.00	1.00	.60	1000	.50
Carolus Clusus (W. P.) Fine early light	10				Ot.	1.50
rose. Good commercial .....	100	2.50	1.25	.50	1000	.50
*Catherine Coleman (C) Soft salmon with	10	.40	.20		Ot.	2.50
purple mark on throat .....	100	3.00	1.50	.60	1000	.75
Charlotte Pfitzer (P.) Very tall light pink.	10	.50	.30	.20	Pkg.	.20
Many open .....	100	4.00	2.00	1.00	1000	2.00
*Chas. Dickens (Pfitzer) Rich reddish	10	.40	.25	.15	Pkg.	.20
purple with deeper blotches .....	100	3.00	1.50	.75	1000	.75
Chicago (K) Deep pink. Ruffled .....	10	.60	.30	.20	1000	2.00
Col. Lindbergh (Ellis) .....	10	.90	.45	.20	200	.20
Red white throat .....					1000	1.00
*Commander Koehl (W. P.) Tall, large.	10	1.75	.75	.50	100	1.25
Probably best crimson .....	100	15.00	8.00	4.00	1000	10.00
Copper Bronze (K) .....	10	.40	.20		Ot.	1.00
Coppery bronze color .....	100	2.09	1.00	.50	1000	.50
Coronado (Briggs) Heavily ruffled white,	10	.80	.40	.20	100	.50
purple lace-like throat .....	100	8.00	4.00	2.00	1000	4.00
Coryphee (W. P.) .....	10	1.00	.50	.30	100	.40
Finest soft rose pink .....	100	9.00	4.50	2.50	1000	3.60
Crinkles (K) Lovely shade of rose; in-	10	.35	.15		Ot.	1.50
tensely ruffled .....	100	2.00	1.00	.50	1000	.50
*Damascus (S) .....	10	1.50	.75	.40	Pkg.	.20
Argyle purple red and Hellebore red ...	100	12.00	6.00	3.00	100	.75
David Airdrie (Mair) .....	10	1.00	.50	.25	100	.25
*Dr. F. E. Bennett (D) Brilliant red. One	10	.35	.15		Ot.	1.50
of the best .....	100	2.00	1.00	.50	1000	.50
*Dr. Moody (Kinyon) .....	10	.40	.20		Ot.	4.00
New early lavender .....	100	3.00	1.50	.80	1000	1.50
*Dr. Nelson Shook (K) .....	10	.40	.20		Ot.	2.50
Deep rose, ruffled .....	100	3.00	1.50	.50	1000	.75
Early Phipps (Ellis) Salmon pink .....	10	.80	.40	.20	100	.20
*Early Sunrise (Hol.) Sunrise red, early	10	1.00	.50	.25	1000	1.00
large. Extra variety .....						
Eliz. Swartley (Swartley) Exquisite, soft	10	1.00	.50	.25	1000	1.00
salmon with white throat .....						
Ella Day (Carpenter) Lovely pink. Mas-	10	.50	.25		Pkg.	.20
sive size .....	100	4.00	2.00	1.00	1000	1.00
*Emilie Auburn (L) Deep smoky pink with	10				Ot.	1.00
large cherry red blotch .....	100	2.30	1.20	.50	1000	.50
*Evelyn Kirtland (A) One of the finest rose	10	.40	.20		Ot.	1.00
pinks .....	100	2.00	1.00	.50	1000	.50
Fanny Crosby (Car) Large creamy white,	1	.25	.15		Pkg.	.15
yellow throat .....	10	2.00	1.00	.50	100	.50
Fern Kyle (K) Massive, creamy yellow.	10	.35	.15		Ot.	1.00
Ruffled .....	100	2.00	1.00	.50	1000	.50
Field Marshall (Mair) .....	1	.75	.40	.25	10	.40
Brownish red. Large .....	10	7.00	3.50	2.00		
Florence (Aust) .....	10	.40	.20		Ot.	2.00
Extra. Lilac lavender .....	100	2.50	1.00	.50	1000	.50
Frank McCoy (Briggs) .....	10				100	.50
New tall pink .....	100	10.00	5.00	2.50	1000	4.00
Frederick Christ (D) Combination of La	1	.50	.30			
France pink and yellow .....	10	4.00	2.00			
Geraldine Farrar (D) .....	10	.35	.15		Ot.	1.50
Lavender blue .....	100	2.00	1.00	.50	1000	.75
Gertrude Pfitzer (Pfitzer) Tall light blue,	10				Pkg.	.20
very fine .....	100	4.00	2.00	1.00	1000	1.00
*Giant Nymph (G. C.) Tall, light pink with	10	.30	.20		Ot.	1.00
creamy throat .....	100	1.25	.50	.25	1000	.50
Gladdie Boy (Bill) Fine pink .....	100	4.00	2.00	1.00	1000	1.00

**MINIMUM ITEM SOLD 15c. MINIMUM ORDER \$1.00**

# HORNBERGER'S - FLOWER - IN - BULBS

Name of Variety	Per	Large	Medium	Small	Bulblets	
		1¼-1½	¾-1¼	¼-¾	Per	Price
*Gloriana (Betcher) Tall. Pure salmon shading to golden throat .....	100	2.09	1.00	.50		
Glory of U. S. A. (Cary) Choice; salmon-pink .....	100	16.04	8.00	4.00	Pkg. 1000	.25 5.00
*Gold Eagle (Austin) Deep, rich yellow ruffled. Extra early .....	100	1.25	.50	.25		
*Golden Dream (Graff) Tall deep rich yellow. Perhaps best commercial .....	100	2.00	1.00	.50	Qt. 1000	1.00 .50
Golden Frills (K) Deep daffodil yellow intensely ruffled. Prim. ....	10				Qt. 1000	1.00 .50
*Golden Measure (Kel) Large, tall yellow. One of the best .....	10	.40	.20		Qt. 1000	1.00 .50
Grace Kimball (Dec.) Fine, tall blue-lavender .....	10	1.00	.50	.25	Pkg. 1000	.25
H. Kanzleiter (Hol.) Very dark velvety red .....	10	.40	.20		Qt. 1000	1.00 .50
*Hamburg Pink (FCH) Large, bright pink. Very showy, quite early .....	100	2.00	1.00	.50	Qt. 1000	1.50 .50
*Heavenly Blue (W. P.) Soft lavender blue. Very charming .....	100	5.00	2.00	1.00	Pkg. 1000	.20 1.00
*Helen Howard (Austin) Buff yellow .....	10	.35	.15		Pkg. 1000	.25 1.00
Helen Jacobs (Salbach) Salmon-pink .....	1	.40	.25	.15	10	.20
Helen Phipps (Pety) Deeper pink than W. H. Phipps. Early .....	10	3.20	2.00	1.20	100	1.50
Helen Wills (Salbach) Lg. creamy white ..	100	2.09	1.00	.50	100	1.00
Hinemoa (Doney) Unusual smoky lacinations .....	10	.40	.20		Pkg. 10	.20 .50
Impressario (K) Yellow. Good, large lacinations .....	1	.60	.40	.20	10	1.00
*Indian Summer (K) Late rosy-lavender .....	1	.50	.25	.15	10	
Ivanhoe (FCH) Bright Salmon-pink .....	10	.40	.25			
John T. Pirie (K) Dark mahogany rose ....	100	3.00	1.50	.75	1000	.50
Jessie (Mair) Deep pink .....	10	.50	.25		Qt. 1000	2.00 .50
J. Van Beijeren (Hol) Violet Purple .....	10	1.00	.50	.25	Pkg. 1000	.20
Jane Addams (Dec.) Very large lavender .....	10	.35	.15		Qt. 1000	1.00 .50
Jean Du Tailles (L) Lovely soft pink harmonious deep maroon blotch in throat ..	10	.35	.15		Qt. 1000	1.50 .75
*Jenny Lind (Decorah) Tall. New strain. Lovely pink .....	10	2.00	1.00	.50	Qt. 1000	2.00 .50
Joerg's White (Joerg) Extra large white .....	10	.35	.15		Qt. 1000	2.00 .50
*Jonkheer Van Tets (W. P.) Very fine Large white .....	100	5.00	3.00	2.00	100	.25
Jubilee (Kemp) Wonderful, new large lavender ..	1	.40	.20		Pkg. 100	.25
King Arthur (Arenius) New lavender; Extra large .....	10	3.00	1.50	1.00	Pkg. 100	.25
Kirchoff's Violet (K) Deep pure violet .....	1	.25	.20			
*K's Yellow Wonder (K) Fine, tall yellow .....	10	2.00	1.00	.50	1	1.00
Laidlev (Australian) Outstanding, new ..	10	10.00	5.00	2.50		
Ladv MacBeth (Ellis) Red-white throat ..	10	.35	.20		Qt. 1000	1.50 .50
La Paloma (Dusinberre) Tall orange. Prim. Grand .....	10	2.00	1.00	.25	Qt. 1000	1.00 .50
Lavender Bride (Bride) Smoky lavender .....	1	1.00	.50	.25	100	.20
	10	.70	.35	.15	Qt. 100	12.00 .60
	100	1.50	.75	.35	Qt. 100	1.50 .50
	10	12.00	6.00	3.00	Qt. 1000	
	10	.35	.20			
	100	2.00	1.00	.50		

2 BULBS OR MORE AT THE 10 RATE PRICE



## NONE BETTER GROWN

Name of Variety	Per	Large	Medium	Small	Bulblets	
		1¼-1½	¾-1¼	¼-¾	Per	Price
Levathian (Alkemade) Yellow. Claimed as Holland's best .....	1	.25	.15		6	.15
Lorice (Kemp) .....	10	.35	.15		Qt.	1.00
Large salmon orange .....	100	2.00	1.00	.50	1000	.50
*Loyalty (Austin) A yellow that's yellow. Sturdy grower .....	10	.50	.30	.15	Qt.	8.00
Lily of Gold (K) Rich canary yellow. Lower petals shade deeper .....	100	4.00	2.00	1.00	1000	2.00
*Mammoth White (Hol) Very large. Pure white .....	10	1.50	.75	.40	100	.40
Margaret Goodrich (Goodrich) White, red blotch in throat .....	100	12.50	6.25	3.00	1000	3.00
Margaret Lewtas (Stockton) Extra early magenta .....	10	1.00	.50	.25	100	.50
Margaret Stevens (Stevens) Tall. Early pink .....	100	10.00	4.00	2.00	1000	5.00
*Marmora (Erry) Smoky lavender with deeper throat blotch .....	10	.35	.15		Pkg.	.15
Marolee (Carp.) Large Pink with yellow blotch .....	100	3.00	1.00	.50	1000	.75
Mary Frey (Gelser) Lavender-pink, ruby blotch on lower petals .....	10	.35	.15		Qt.	2.00
Mary Jane (K) Silvery lavender-pink clear lavender throat .....	100	3.00	1.00	.50	1000	.50
Mauve X. (Australia) Lavender, lighter than Peters .....	1	.25	.15		Pkg.	.20
Milk Maid (Gilrey) Pure white .....	10	2.00	1.00	.50	100	.50
*Minuet (J. C.) Large Clear lavender. Outstanding .....	10	.40	.20		Qt.	2.00
Miss Des Moines (Dec) Clear, pale lilac shading deeper petal tips .....	100	2.50	1.10	.50	1000	.60
Miss New York (FCH) Peach pink, extra choice color .....	1	.50	.25	.15	10	.25
*Mme. Mounet Sully (Lem) Cream white with red blotch .....	10	5.00	2.50	1.50	100	2.00
*Morocco (W. P.) Dark red, almost black .....	10	.40	.20		Qt.	2.00
*Mother Machree (F. S.) Smoky. Sweep-stake Prize Winner .....	100	2.50	1.00	.50	1000	.50
Mrs. Anna Pfitzer (Pfitzer) Tall cream color .....	10	.50	.25		Qt.	4.00
Mrs. Calvin Coolidge (K) Soft salmon, pure yellow throat. Prim. .....	100	4.00	2.00	1.00	1000	1.00
Mrs. Cath. Edwards (FCH) Tall. Extra early creamy white .....	10	.35	.20		Qt.	.15
*Mrs. Dr. Norton (K) Prize winning pink, and cream .....	100	.25	.15		100	.20
*Mrs. F. C. Hornberger (FCH) Pure white tall, strong. 6-8 open flowers. Best com. .....	10	4.00	2.00	1.00	1000	2.00
*Mrs. F. C. Peters (F) Lavender, tall strong plant. Extra good .....	10	.80	.40	.20	100	.25
Mrs. H. A. Caesar (V) Light lavender, or orchid .....	100	7.00	3.00	1.00	1000	2.00
Mrs. John Walsh (D) Ruffled rose-pink with blotch .....	10	1.50	.75	.40	Qt.	7.50
*Mrs. Leo. Miller (Miller) .....	100	12.00	6.00	3.00	1000	2.00
*Mrs. Leon Douglass (D) Begonia-rose striped with scarlet .....	1	.40	.25	.15		
Mrs. P. W. Sisson (J. C.) Cameo pink, many open, extra fine .....	10	3.00	1.50	.80	100	1.00
*Mrs. Ray P. Chase (Miller) Large, creamy white, light yel. throat .....	10	.35	.20		1000	.50

**MINIMUM ITEM SOLD 15c. MINIMUM ORDER \$1.00**

**HORNBERGER'S - FLOWER - IN - BULBS**

<i>Name of Variety</i>	<i>Per</i>	<i>Large</i>	<i>Medium</i>	<i>Small</i>	<i>Bulblets</i>	
		<i>1¼-1½</i>	<i>¾-1¼</i>	<i>¼-¾</i>	<i>Per</i>	<i>Price</i>
Mrs. Van Konynenberg (Hol.) .....					300	.25
Blue-lavender, tall, fine .....	100	3.00	1.50	.75	1000	.75
*Mr. W. H. Phipps (D) .....	10	.35	.15		Qt.	1.00
Exhibition. Rose salmon pink .....	100	2.00	1.00	.50	1000	.50
*Marnia (Kemp) .....	10	.35	.15		Qt.	1.50
Tall, large orange .....	100	2.00	1.00	.25	1000	.50
*Muriel (Pfitzer )Large Violet blue .....	10	.35	.15		Qt.	2.00
	100	3.00	1.00	.50	1000	.50
Nancy Hanks (Salbach) .....	10	.35	.15		Qt.	1.50
Apricot to orange pink .....	100	2.00	1.00	.50	1000	.50
New Gold (FCH) .....	1	.30	.15		Pkg.	.20
Tall, Golden yellow .....	10	2.50	1.25	.75	100	1.00
Orange Flame (K) .....	.10		.25	.15	Pkg.	.20
Late Ruffled orange-scarlet .....						
*Orange Queen (Hol.) .....	10	.35	.15		Qt.	1.00
Early. Fine orange Prim. ....	100	2.00	1.00	.25	1000	.50
Orange Wonder (Kemp) .....					100	.25
Fine new orange .....	100	6.00	2.50	1.00	1000	2.00
Orchid Lady (B. H. S.) .....	10	.35	.15		Qt.	1.00
Early orchid lavender. Very large .....	100	2.00	1.00	.35	1000	.50
Osalin (Kemp) Large, Coral Pink .....	10	.35	.15		Pkg.	.15
	100	3.00	1.00	.50	1000	.50
Our Selection (Ball) .....	1	.20			100	.70
Salmon red, many open flowers .....	10	1.50	.75	.35	1000	6.00
Paul Pfitzer (W. P.) .....	10	.40	.20		Qt.	2.50
Dark, Velvety purple .....	100	3.00	1.50	.75	1000	.75
Pauline Kunderd (K) .....	10	1.00	.50	.25	100	1.00
Soft salmon-rose ..	100	8.00	4.00	2.00	1000	7.00
Pearl of California (Kin) .....	10	.80	.40	.20	Pkg.	.20
La France pink blending to rosy throat .....	100	7.00	3.50	1.25	1000	1.00
Persia (N. B. Co.) Dark red, almost black .....	10	.50	.25	.15	1000	.50
Pfitzer's Triumph (W. P.) .....	10	.40	.30		100	.20
Large, Bright Salmon-orange .....	100	3.00	1.20	.60	1000	1.50
Picardy (Palmer) .....	1	2.00	1.25	.75	1	.25
Shrimp pink .....	10	16.00	10.00		10	1.00
Pink Cloud (K) .....					Qt.	1.00
Ruffled. Unusual shade of pink .....	100	2.00	1.00	.50	1000	.50
Pink Show (FCH) .....	1	.50	.30	.20	10	.30
Very tall, Delicate light pink. New .....	10	4.00	2.00	1.00	100	2.00
Pirate (Palmer) Red .....	1	1.50	1.00	.40	10	1.00
Point Twain (Ellis) Large pink .....	10	1.60	.90	.40	100	.40
Pride of Wanakah (Christwell) .....	10	.35	.15		Qt.	1.00
	100	2.00	1.00	.50	1000	.50
Prince of India (Childs) .....	10	.40	.30		Pkg.	.20
Smoky, red in throat .....	100	3.50	1.20	.60	1000	1.00
Purple Glory (K) .....	10	.35	.15			
Ruffled. Dark maroon red .....	100	2.00	1.00	.50	1000	1.00
Purple Queen (K) .....	10	.35	.15		Pkg.	.15
Good purple .....	100	3.00	1.50	.60	1000	.75
*Pythia (K) .....	10	.35	.15		Qt.	1.00
Large, pure red. Very strong .....	100	2.00	1.00	.50	1000	.50
Queen Louise (Pfitzer) .....	1	.50	.25	.15		
Tall, new White .....	10	4.00	2.00	1.50		
Queen Mary (Mair) .....	1	.40	.30	.20	10	.40
Tall, massive buff cream .....	10	3.00	2.00	1.50	100	3.00
*Radiant Queen (FCH) .....	10	.35	.15		Qt.	1.00
Radiant orange. Prim-Grand .....	100	2.00	1.00	.50	1000	.50
Ramasses (Stevens) Large purple .....	1	1.50	1.00	.60	10	.80
Red Fire (K) Brilliant fire red .....	10	.50	.25	.15	1000	.50
Red Lory (Errey) .....	1	.35	.20			
Red with darker blotch .....	10	2.50	1.00	.50	10	.20
Red Phipps (Briggs) Bright red .....	1	1.00	.60	.40	10	.60

**2 BULBS OR MORE AT THE 10 RATE PRICE**



NONE BETTER GROWN

Name of Variety	Per	Large	Medium	Small	Bulblets	
		1¼-1½	¾-1¼	¼-¾	Per	Price
Red Tornado (Ellis)	1	.25	.15			
Dark red	10	2.00	1.00	.50	25	.25
Richard Diener (Diener)					Qt.	1.00
Salmon pink	100	2.00	1.00	.50	1000	.50
Rippling Waters (Ellis)						
Cream, good commercial						
Rita Beck (F) Pure shell pink	10	.40	.20		Pkg.	.20
Roderick Dhu (Stephen)	10	.80	.40	.20	100	.20
Large pink with blotch						
*Romance (K)	10	.35	.15		Qt.	2.00
Smoky edged blue	100	3.00	1.00	.50	1000	.50
*Rose Ash (D)					Qt.	1.00
Ashes of roses	100	2.00	1.00	.50	1000	.50
*Rose Mulberry (Austin) An improvement	10				Qt.	1.50
over Rose Ash. Very fine	100	2.00	1.00	.50	1000	.50
Royal Lavender (S) Deep lavender shad-					Pkg.	.25
ing lighter toward center	100	6.00	3.00	1.50	1000	3.00
Rozan (Britsch) Extra large bright pink	100	2.09	1.00	.50		
Ruffled Gold (G) Golden yellow ruffled	100	3.58	1.67	.84		
Salbach's Pink (Sal.) Geranium pink	10	1.50	.75	.35	100	.75
*Salmon Glow (FCH) Orange-salmon with					Qt.	1.00
yellow throat. Prim-Grand.	100	2.00	1.00	.25	1000	.50
*Saraband (Salbach)	10	.35	.15		Qt.	1.50
Tall. Plum purple, extra good	100	2.00	1.00	.50	1000	.50
Sir Roger Casement (D) Dark red	10	1.00	.50	.25	10	.20
Scarlet Wonder (Graff) Same as Graff's					Qt.	1.00
Majestic. Deep orange-red	100	2.00	1.00	.50	1000	.50
Schubert (Pfitzer)	1	1.00	.50	.35	10	.40
Apricot yellow with scarlet blotch	10	8.00	4.00	2.50	100	3.00
*Schwaben Girl (W. P.)	1	1.00	.50	.35	10	.40
Early. Pure pink. Tall Exhib.	10	8.00	4.00	2.50	100	3.00
Senorita (Langlois)	10	.60	.30	.20	100	.35
Orange shading to dark brown						
*Senorita (Salbach)	10	.60	.30	.20	100	.35
Buff yellow and red	100	5.00	2.50	1.25	1000	3.00
Snowden (Ball)	1	.25	.15		10	.25
Large Mauve. Australian	10	2.00	1.00	.50	100	2.00
Solveig (Prestgard) Ruffled white	1	40.00	28.00	20.00	1	4.00
Star of the Sea (Ellis) Peach red	10	1.00	.50	.25	10	.20
*Sunnymede (F)	10	.35	.15		Qt.	2.00
Orange buff, attractive shade	100	2.00	1.00	.50	1000	.50
Sunshine Girl (S)	10	3.00	1.50	.75	Pkg.	.20
Clear Pink, yellow throat	100		10.00	5.00	100	1.50
*Sweet Rose (K)	10	.35	.15		Qt.	1.50
Pure deep rose-pink	100	2.00	1.00	.50	1000	.50
True Value-Mixed	10	.35	.15		Qt.	1.00
50 Kinds and colors	100	2.00	1.00	.50	1000	.50
*Trevonian (FCH)	1	2.00	1.00	.50	1	.20
New lavender, rose. Outstanding	10	18.00	9.00	4.00	10	1.50
Triumphator (Hol.)	1	.30	.20	.15	10	.20
Early tall red	10	2.50	1.50	1.80	100	1.00
Trudel Grotz (W. P.)	10	.35	.15		Qt.	1.50
Medium height Giant Pink	100	2.00	1.00	.50	1000	.50
Thos. A. Edison (Kunderd)	1	.50	.25	.15	Pkg.	.25
Ruffled red	10	5.00	2.50	1.50	100	5.00
Tobersun (Austin)	10	1.00	.50	.25	15	.15
Tall yellow	100	8.00	4.00	2.00	1000	5.00
Vaughan's White (V)	10	.35	.15		Qt.	2.00
Good Pure White	100	2.00	1.00	.50	1000	.60
*Veilchenblau (Hol.)	10				Qt.	5.00
Fine dark. Blue	100	4.00	2.00	1.00	1000	1.50

MINIMUM ITEM SOLD 15c. MINIMUM ORDER \$1.00

HORNBERGER'S - FLOWER - IN - BULBS

Name of Variety	Per	Large	Medium	Small	Bulblets	
		1¼-1½	¾-1¼	¼-¾	Per	Price
Victor (Australian) (Errey) .....					100	.25
Scarlet with white throat .....	100	5.00	2.50	1.25	1000	2.00
Vintage Wine (FCH) .....	1	.50	.25	.15	10	.40
Unusual shade of wine red .....	10	4.00	2.00	1.00	100	3.00
Virginia Hale (K) Lovely pink and white	10	.50	.25	.15	1000	1.00
*White Star (FCH) .....	10	.35	.15		Qt.	1.50
A tall, pure white .....	100	2.00	1.00	.50	1000	.50
William Kent (D) .....	10	.35	.15		Qt.	1.00
Late, ruffled creamy buff pink .....	100	2.00	1.00	.50	1000	.50
*Yvonne (Hol.) .....	10	.40	.25	.15	Qt.	2.50
Early. White, cerise marking .....	100	3.00	1.50	.60	1000	.75

We have very fine bulbs, all sizes and bulblets, of the following. Write for Prices, or tell us the size and variety and allow \$.25 or more on each item, and we will treat you right. If not satisfied, we will return money.

Angela (Parkman's White), Claude Barney (Carey's New Orange), E. J. Farrington (Yellow), Gold, Gallant Leader, Mrs. Pendleton, Santa Barbara, Star of the Sea, Taro (K.), Torveassue Pink, Rosita, Ruffolace, Norma Talmadge, White Premier (Bill), Pride of Ashland (Brown) tall red, Patricia Caster, Chief Joseph, Dainty Pink, Princess Mary, tall pink, Ethelyn (fine orange), Reflection, Le Cygue, Mrs. Olney Whitback, Primrose Princess, Peter Patten, Aurelia and Pilgrim.

A FEW KIND WORDS

A few letters from customers. We regret that we do not have the space to print all of the fine letters received, but we appreciate them, and thank you.

NO. 6'S FLOWERS FREELY: "I ordered 100 No. 6 size; received 114 all nice and clean, 109 bloomed; all were nice large flowers on good spikes. When I dug these bulbs I had 115 fine, clean bulbs, ranging from No. 3 to No. 1 size. This is the best bargain I ever received in Gladiolus bulbs.—Mrs. A. H. (No. 6 are ¼" to ½")

SURPRISED AT VALUE RECEIVED: "I received the bulbs you sent me a few days ago, and I am wondering if you made a mistake in the extras sent me. I sincerely thank you for them.—I. W. K.

APPRECIATES LIBERAL TREATMENT: A well known Clergyman says, "Received my Glad bulbs a week ago, and what a surprise. The quality and quantity were not only first class, but far beyond my expectations. When I began counting the bulbs, it seemed as if you might be going out of business. Are you growing bulbs for a living or to surprise people?

FINEST EVER RECEIVED: "The 1000, No. 6 Early Sunrise was by far the finest lot of bulbs I ever received from any source.—P. A. W.

WONDERFUL BULBS: "I received my order of bulbs, and wish to express my sincere appreciation for the wonderful bulbs you sent me. They are decidedly the best I have received from anyone. I am also grateful for the liberal treatment received.

APPRECIATE QUALITY: "The bulbs and plants received. I wish to inform you of my appreciation of excellent quality of stock furnished, and generosity in filling order, and believe me, I know good plants when I see them.

FINE STOCK: "The bulbs arrived in good shape, and they sure are fine bulbs; I believe the nicest I ever bought. I don't see how you could beat them.



## 50 "FAVORITES" TOTAL VOTE FOR 4 YEARS

Reprint from *Gladiolus Review*, November, 1932

Following is the standing of fifty varieties receiving the highest vote for the fourth year in the National Symposium as conducted by the American Gladiolus Society. We give them in the order of number of votes received.

<i>Variety</i>	<i>Total No. Votes 4 Yrs.</i>	<i>Variety</i>	<i>Total No. Votes 4 Yrs.</i>
Mr. W. H. Phipps .....	1458	Mother Machree .....	269
Minuet .....	1264	Joerg's White .....	259
Mrs. Leon Douglas .....	1225	Mrs. F. C. Hornberger .....	256
Dr. F. E. Bennett .....	1063	Mrs. Frank Pendleton .....	250
Pfitzer's Triumph .....	1054	Fern Kyle .....	248
Marmora .....	949	Heavenly Blue .....	238
Golden Dream .....	797	Berty Snow .....	231
Purple Glory .....	689	Paul Pfitzer .....	228
Betty Nuthall .....	687	Dr. Moody .....	225
Giant Nymph .....	509	Jane Addams .....	210
Veilchenblau .....	444	Richard Diener .....	204
Mrs. F. C. Peters .....	404	Charles Dickens .....	194
Mrs. P. W. Sisson .....	394	Rita Beck .....	191
Emilie Auburn .....	387	Pearl of California .....	190
Gloriana .....	383	Aida .....	167
Longfellow .....	351	Mammoth White .....	166
Dr. Nelson Shook .....	348	Los Angeles .....	166
Albatross .....	340	Rose Ash .....	156
Golden Measure .....	323	Capt. Boynton .....	149
Mrs. Dr. Norton .....	322	Anna Eberius .....	137
Catherine Coleman .....	317	Commander Koehl .....	130
Crimson Glow .....	314	Ave Maria .....	113
Coryphee .....	290	Picardy .....	108
Aflame .....	289	Geraldine Farrar .....	105
Mrs. Van Konynenburg .....	272	Pride of Wanakah .....	103

We are now growing or have grown in past years every variety on this list, and we have found the most of them very satisfactory under our growing conditions. You will note the few votes cast for very new varieties like Commander Koehl, Ave Maria and Picardy. This does not mean that these varieties are inferior—far from it. Compare the votes cast for Mr. W. H. Phipps, which leads the list with 1458 votes, with Picardy's 108 votes. It is safe to say that of the total highest number of 1458 votes for Mr. W. H. Phipps, not more than one out of ten voters have ever grown Picardy or Commander Koehl; so were not able to vote for varieties they have not grown.

Now for a few personal comments on this list of fifty. I have grown every one of them, and still grow all but Longfellow which we discarded last year. We can not get any practical results with this variety and we believe the high place it enjoys is given it mainly by irrigation Growers' votes, and others who have very superior soil conditions. We have grown Longfellow for years in N. Y. state as well as in New Jersey. Its color and placement are almost ideal. Its foliage is very bad, and the reason we discarded this variety is because we can not get any satisfactory length spikes. They all average much too short. Jane Addams, Richard Diener and Joerg's White are also very short. You must use good soil to get results. Rita Beck has never been satisfactory here. Coryphee is extra fine but do not grow it on dry soils. Berty Snow, Paul Pfitzer and Pearl of California have not been outstanding here. All the remaining varieties are very fine and satisfactory under our conditions of soil and climate. Coranado, not in the above list, but widely advertised by western growers, has never given us any satisfactory results, although we have grown it for many years, always favoring it with soil locations.

# WHAT ARE THE BEST VARIETIES?

By F. C. HORNBERGER

“Grow the Best”. Many growers use this slogan, I have used it many times myself, but I realize that a list of varieties, that might prove very satisfactory or even outstanding, under my particular growing conditions of soil, climate, etc.; may not answer for some other grower, although he may be located very near to me. If you should ask twenty or more growers for a list of what they regarded, as the most outstanding varieties, I feel sure that no two lists would be exactly alike, and this would not be due to personal preference alone, as it is surprising, how different varieties react to different soil conditions, as well as climate.

I have grown glads for nearly twenty years on an increasingly large scale, growing millions of bulbs yearly, as a grower of new and rare varieties, we have at most times, from 500 to 1000 varieties, under test, then as an originator and hybridist, I am growing thousands of seedling varieties under test, I have grown and discarded thousands of named varieties in past years, we have had opportunity to grow glads, under about every kind of soil condition, in the east, I have grown glads in three states; In our western N. Y. operations, we plant on an entirely different farm each year, some of these farms have as many as ten distinct types of soil, the results have been that we have gained the widest possible experience. We have grown with and without irrigation, we have conducted tests over a period of years, to fully justify ourselves in any claims we may wish to make.

For the many reasons I have given, I do not believe any grower is justified in making sweeping claims for any particular list of glads.

I believe some of the individual symposiums now being conducted by individual growers, are very misleading and most inaccurate. By all means let us abide by the opinion of mass symposiums, the state symposiums are by far the most satisfactory, as they will reflect more the local conditions and requirements. Next to the state symposium, the national symposiums are the most satisfactory, but in these non-irrigation growers vote against irrigation growers, as their growing conditions have little in common, most individual symposiums I have read I am willing to discount by from 25% to 50%; not a very desirable compendium of information.

The number of new varieties are increasing at such a rapid rate, and the advertising claims are so wide and varied, that it is becoming increasingly difficult for growers and fans, to select with the least cost of time and money a dependable list for their requirements.

We have no way of knowing how a variety was grown by its appearance in the show room. We do not know if it was grown in a 100% seed bed or under conditions that would only rate 25% or 50%. Our only hope of passing judgment by show room records, is where varieties have won over a long period of years, in many different sections of the country, but with all varieties that are shown the first time, we have no method of judging its real intrinsic value.

The sign of the asterisk (\*) when printed before a variety name, will indicate that to the best of our knowledge and experience, that these varieties have given us, the best yearly performance, over many years tests on many different kinds of soils; Others not so marked, consist of new varieties that have not been tested long enough, and many others, that we do not feel will give as good results under more adverse conditions, as we find them so often in the east.

Many glads that have recently been highly advertised as “super glads” by individuals in other sections of the country, we have discarded in recent years as worthless under our growing conditions, we do not condemn these varieties in themselves and believe they are fine in their right environment, but that environment has not been under our particular conditions. Even plants as large and hardy as apple trees must be selected with this end in view, some varieties do well in very limited areas. For years we have been conducting experimental work for the U. S. testing out foreign seeds, plants and trees, gathered from every corner of the globe and this has given us considerable insight into how plants respond to soil and climate. Varieties marked with an asterisk (\*), are generally good propagators, but there are a few exceptions and these require special effort to induce germination: Mme. Sulley, Cath. Coleman, Early Sunrise, etc.



1933 WHOLESALE LIST

NOT PREPAID

Prices quoted are F. O. B. shipping point; most varieties F. O. B. Hamburg, N. Y., but varieties printed in *italics* can be shipped from our New Jersey Farm, F. O. B. Matawan or Red Bank, N. J. Many of these varieties we can quote in large lots as we have produced nearly half a million bulbs of some single varieties. The prices below are among the lowest offered at date this is printed, as we cannot predict what later offerings will be. We are prepared to meet the F. O. B. prices of Eastern and Mid-western growers on the larger sizes that cost you so much Express to ship a long distance, and we will try to meet all quotations on smaller size bulbs and bulblets. If you find any other reliable grower quoting lower prices, send us your list. We will quote as low as possible, and we believe that our growing locations are very favorable in serving many sections at a low Express cost.

For Varieties Not Listed Below See Prepaid part of this catalog. Some of these varieties we can offer in quite large quantity. We prefer to quote these in large, medium and small as we list them.

Approximate weight of bulbs, ready to ship: No. 1 size, about 85 to 90 pounds per 1000; some varieties that make extra heavy bulbs may run to 100 pounds per 1000; Oversize, #1 or extra large #1, about 150 pounds per 1000; No. 2 size, about 55 pounds per 1000; No. 3 size, about 25-30 pounds per 1000; No. 4 size, 10-12 pounds per 1000; No. 5 size, 4-5 pounds per 1000; No. 6 size, 1½-2 pounds per 1000. Bulblets: 1 quart—2 pounds packed. Second Class Express, per 100 pounds, from coast to coast will cost over \$10.00.

TERMS—READ PAGES 9, 10, AND 11, BEFORE ORDERING.

Price per 1000 Name of Variety	Size						Bulblets	
	1	2	3	4	5	6	Qt.	Peck
Aflame .....	\$25	\$20	\$15	\$10	\$ 8	\$ 5	\$4.00	\$25.00
Aida .....	40	30	20	15	12	8	5.00	
<i>Anna Eberius</i> .....	10	8	5	3	2	1	.75	4.00
Aristocrat .....	25	20	15	10	8	4	2.00	
Ben Hur .....	30	25	18	10	7	4	3.00	20.00
<i>Betty Joy</i> .....	12	10	8	6	4	2	1.00	4.00
Betty Nuthall .....	28	20	13	10	8	6		
Capt. Boynton .....	15	12	10	8	4	2	1.50	8.00
Commander Koehl .....	90	80	60	50	40	30		
<i>Dr. F. E. Bennett</i> .....		10	8	6	4	2	1.00	6.00
<i>Dr. Moody</i> .....	24	20	15	10	8	5	4.00	
Dr. Nelson Shook .....	25	20	15	10	8	5		
Emilie Auburn .....	20	17	14	10	8	5		
Geraldine Farrar .....		17	14	10	8	5	2.00	
<i>Giant Nymph</i> .....	12	9	6	4	2	1	.75	4.00
<i>Golden Dream</i> .....	15	12	9	6	4	2	1.00	6.00
Golden Measure .....	12	10	8	4	2	1	1.00	5.00
<i>Hamburg Pink</i> .....	12	10	8	6	4	2	.75	5.00
Heavenly Blue .....	50	40	25	15	10	5	3.50	
Helen Phipps .....	30	25	20	15	10	5	3.00	
<i>Jean du Tailles 98%</i> .....	15	12	10	7	4	2		4.00
<i>Jenny Lind (Tall strain)</i> .....	12	10	8	6	4	2		4.00
Kirchoff's Violet 98% .....	12	10	8	6	4	2		4.00
Lavender Bride .....	20	15	10	8	6	4		5.00
Loyalty . . . . .	40	30	20	15	10	6		50.00
Marmora .....	25	20	15	10	5	3		10.00
<i>Mary Frey</i> .....	25	20	15	10	4	2	1.50	10.00
Mary Jane .....	25	20	15	10	5	3	6.00	
Minuet .....	25	20	13	10	7	5	5.00	
Miss New York .....	90	80	60	50	40	30		40.00
Mother Machree .....	70	60	40	30	20	15		40.00
<i>Mr. W. H. Phipps</i> .....	14	12	8	5	3	1.50		5.00

<i>Price per 1000</i> <i>Name of Variety</i>	<i>Size</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>Bulblets</i> <i>Qt.</i>	<i>Peck</i>
<i>Mrs. L. Douglass</i> .....	12	10	7	5	3	2			7.00
<i>Mrs. Cath. Edwards</i> .....	70	60	40	30	20	15			30.00
<i>Mrs. F. C. Hornberger</i> .....	15	11	8	6	4	2			5.00
<i>Mrs. Dr. Norton</i> .....	12	8	6	4	2	1			5.00
<i>Mrs. F. C. Peters</i> .....	15	12	9	6	4	2			5.00
<i>Mrs. P. W. Sisson</i> .....	16	13	10	7	4	2			
<i>Marmia</i> .....	10	8	6	4	3	1.50			4.00
<i>Nancy Hanks</i> .....	14	12	6	4	3	2			5.00
<i>Orchid Lady</i> .....	14	12	8	6	4	2	1.00		5.00
<i>Pfitzer's Triumph</i> .....	32	24	15	12	10	8			
<i>Radiant Queen</i> .....	15	12	10	7	5	3	1.00		6.00
<i>Rose Mulberry</i> .....	20	15	10	8	5	3	1.00		6.00
<i>Salmon Glow</i> .....	10	8	6	4	2	1	1.00		4.00
<i>Saraband</i> .....	18	14	10	6	4	2	1.00		4.00
<i>Wm. Kent 98%</i> .....	15	12	10	8	4	2	1.00		4.00

**SPECIAL PRICES WILL BE QUOTED:** We realize that in these times of adjustment, and changing price levels, that any printed list may be quickly out of date. We ask you to send us your list of requirements any varieties we list in this catalog. Tell us the size and quantity wanted, and we will quote as low as any other reliable grower can quote on high quality stock. We can quote prices on bulblets in bushel lots and up, also many not quoted here, will be gladly quoted on request. We can save you money on new high priced varieties.

### WARM FREIGHT CAR SERVICE

Some growers have recently been advertising this kind of service. As a rule it reads, "Warm protected car service, at rate of \$3.75 per 100 lbs." In no case do they state the minimum that can be shipped, but we concluded that if others could offer this service, that it should also be available to us, so we asked one of the largest railway systems in the country to give us all data on this subject. Here is their letter:

#### THE NEW YORK CENTRAL RAILROAD COMPANY

CENTRAL TERMINAL, BUFFALO, N. Y.

EDW. HOAGLAND, *Asst. Gen. Freight Agent*

Dear Sir:

Dec. 6, 1932.

This will acknowledge your letter of November 23, with regard to heated freight car service from the Pacific coast to points east.

I have made a *thorough* investigation, and I am unable to find that any of the western lines are providing heated car service *on less than carload* shipments, from the Pacific coast to points east. There is heater car service provided on carload shipments between such points; but so far as I can develop, such an arrangement has never been operative *on less than carload* shipments."

E. HOAGLAND.

Many of our customers have asked us about such service, and the above is the answer. We can only supply such service in full carload lots. The same applies to shipments from the west to the east.



## THE NEW ENGLAND GLADIOLUS SOCIETY

If I had only one choice of a Gladiolus Society, it would be the N. E. G. S. Instead of sending out many small bulletins or magazines, they collect their information and print a large, handy reference book called a "Yearbook". It is always up to date as a new book is issued each year which has entirely new reading matter touching on every subject of interest to Glad Growers.

I am interested in securing as many new members as possible, and make the following offer: Membership will cost \$1.00 for which you will receive from the Society the Wonderful Fischer Color Chart (12x12 inches), printed in one hundred and eight colors, tints and shades, used to ascertain the correct colors. Also a copy of the one hundred eighty-four page Year Book; all of this is extra. You will also receive the Big 1933 Year Book issued in February. This will entitle you to full membership until December 31, 1933. However, we will have to receive all applications before November 1, 1933, and if you will mail us your \$1.00 before April 1, 1933, we will let you select \$1.00 worth of bulbs from OUR PRIZE and PREMIUM LIST, see Catalog. We will give these entirely free except that we ask you to add ten cents \$.10 for postage on Bulbs.

AMERICAN GLADIOLUS SOCIETY, Empire State Gladiolus Society and other affiliated Societies' membership is \$2.00 per year. This includes the monthly Gladiolus Review. We will accept and forward your membership.

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"The heights by great men  
reached and kept,  
Were not attained by sudden  
flight;  
But they while their com-  
panions slept,  
Were toiling upward in the  
night."

—Longfellow.



FALLU'S GARDEN: SOUTH AUSTRALIA

*Where Glad. Bill Sowden Originated.*